

being many shades paler in *S. parva*. I think there can be no question as to their specific distinctness."

+5. *QUISCALUS NICARAGUENSIS*, sp. n.

Purpureus æneo micans, fere unicolor, alis minus nitidis, uropygio purpurascentiore, rostro et pedibus nigris. Long. tota 12·0, alæ 5·0, caudæ rectr. med. 5·5, rectr. lat. 3·3, rostri a rictu 1·4, tarsi 1·5.

♀. Supra brunnea, dorso, alis, et cauda saturatoribus et purpureo vix tinctis; superciliis obsoletis, quam regio parotica vix pallidioribus: subtus sordide albida, pectore paulo obscuriore, hypochondriis et tectricibus subcaudalibus brunneis: rostro et pedibus nigris. Long. tota 9·5, alæ 4·1, caudæ rectr. med. 4·0, rectr. lat. 2·5, rostri a rictu 1·15, tarsi 1·25.

Hab. Momotombo, Lake Managua (*W. B. Richardson*).

A very distinct species of *Quiscalus*, belonging to the same section as *Q. macrurus*, but of much smaller dimensions, the male less brilliant, and the female of a much paler dirty white colour beneath, instead of brown.

Mr. Richardson sends us several specimens, of both sexes, of this bird, all shot in May of the present year at Momotombo, on the shores of Lake Managua.

LII.—Notices of recent Ornithological Publications.

[Continued from p. 463.]

94. *Allen on a new Mimocichla.*

[Description of a new Species of *Mimocichla*, from the Island of Dominica, West Indies. By J. A. Allen. *Auk*, viii. p. 217.]

Mr. Allen proposes to separate the *Mimocichla* of Dominica from *M. ardesiaca* of San Domingo as *M. verillorum*. He has since discovered (*cf.* *Auk*, 1891, p. 317) that the same bird had previously been named *Mimocichla ardesiaca albiventris* (*cf.* Selater, *P. Z. S.* 1889, p. 326), and accordingly alters the name to *Mimocichla albiventris*.

95. *Buttikofer's Sketches of Liberia.*

[Reisebilder aus Liberia. Resultate geographischer, naturwissenschaftlicher, und ethnographischer Untersuchungen während der Jahre 1879–1882 und 1886–1887. Von J. Büttikofer. 2 vols. 8vo. Leiden: 1890.]

Herr Büttikofer has devoted a chapter of his interesting work on Liberia, where, as is well known, his explorations have achieved excellent results in every branch of natural science, to its Birds—a subject on which he is our leading authority. The various forms characteristic of the Liberian ornithology are shortly described, and their chief peculiarities are pointed out. Besides a series of pretty woodcuts of birds and nests, coloured plates are given of two species—*Accipiter büttikoferi* and *Bubo lettii*.

96. *Fiore on the Calabrian Avifauna.*

[Materiali per una Avifauna Calabra. Appunti di Ornitologia Calabra raccolti dal Bar. Carlo de Fiore. 8vo. Roma: 1890. Pp. 76.]

After describing the topography and physical features of the district, Dr. de Fiore gives a list of the 219 species of birds as yet recognized as found in Calabria, with remarks on the times and particulars of their occurrences. Tables of the sedentary and migrant species are subjoined. Seventy-six species are stated to breed in the district.

97. *Gätke on the Birds of Heligoland.*

[Die Vogelwarte Helgoland. Von Heinrich Gätke. Herausgegeben von Prof. Dr. Rudolf Blasius. 8vo. Braunschweig: 1881. Pp. 610.]

With the editorial assistance of Dr. R. Blasius, Herr Gätke has now got out his long-promised and most interesting volume on the birds of Heligoland, and, as announced in our last number, has favoured us with an early copy. Gätke's book contains three chapters, the first being a treatise on migration, as studied during the author's fifty years' residence in Heligoland, divided into nine sections; the second containing observations on the alterations effected in the plumage of birds by change of colour in the feathers without

moult ; and the third being a systematic account of the 396 species of which specimens have as yet been obtained or observed on the island. Mr. Seebohm has kindly prepared a very full abstract of this third portion, which we shall give in our next number, so that we need say no more about it now.

As already mentioned (above, p. 299), it has now been definitely arranged that the Gätke Collection shall remain in the island, and form part of the Museum of the new Imperial Zoological Station shortly to be founded there, so that Heligoland will remain the Mecca of European ornithologists, to which every ardent devotee of our science should not fail to make a pilgrimage.

98. *Giglioli on the Results of the Ornithological Investigation of Italy.*

[Primo Resoconto dei Risultati della Inchiesta Ornitologica in Italia. Parte terza ed ultima. Notizie d' Indole generale, Migrazioni, Nidificazione, Alimentazione, ecc. Compilato dal Dottore Enrico Hillyer Giglioli. 8vo. Firenze: 1891. Pp. 518.]

The third and last volume of Dr. Giglioli's report (*cf.* Ibis, 1890, p. 114, and 1891, p. 131) is devoted to the information of a general nature supplied to him by his collaborators in the Ornithological Investigation of Italy. These observations are systematized under five heads:—(1) Those of a general character, such as the increase and diminution of certain species ; (2) those concerning migration ; (3) those about nidification ; (4) those relating to the food of different species ; and (5) statistics as to the number of individuals of different species shot or captured. In a final Appendix three new species are added to the previous list of the Italian avifauna, namely, *Budytes beema* (Sykes), *Cypselus affinis*, Hardw., and *Falco barbarus*, Linn., the last-named upon the authority of Mr. Dresser's specimen of this bird obtained at Malta in 1885 (see above, p. 363).

99. *Hartert on Ammomanes lusitanica parvirostris.*

[Berichtigende Bemerkung zu *Ammomanes lusitanica parvirostris*, nov. subsp. Von Ernst Hartert. J. f. O. 1891, p. 110.]

Herr Hartert now admits that his *Ammomanes lusitanica parvirostris* (above, p. 452) is identical with *Ammomanes phœnicuroides* (Blyth) of the Catalogue of Birds (xiii. p. 647). See also his Catalogue (p. 41), mentioned below.

100. *Hartert's Catalogue of the Birds of the Senckenberg Museum.*

[Katalog der Vogelsammlung im Museum der Senckenbergischen Naturforschenden Gesellschaft in Frankfurt am Main. Von Ernst Hartert. 8vo. Frankfurt a. M.: 1891.]

Herr Hartert has done a good work in preparing a catalogue of the birds of the famous Museum Senckenbergianum of Frankfurt. His list gives the names of 3612 species, with the localities of the specimens and the modes in which they were obtained. Many pertinent footnotes are added. Trinomials are freely used, e. g., *Ruticilla phœnicurus mesoleuca* and *Turdus viscivorus bonapartei*, perhaps in such cases not without reason. The systematic arrangement adopted has much to commend it, although we could not follow the author in making *Steatornis* a genus of the family Podargidæ, or in recognizing as a family "Didunculidæ." The Order "Crypturi" is queerly placed between the Herons and the Sand-Grouse; it should go either with the Gallinæ, or better at the end of the Carinatae, next to the Ratitæ.

101. *Koenig on the Birds of Madeira and the Canaries.*

[Ornithologische Forschungsergebnisse einer Reise nach Madeira und den canarischen Inseln von Dr. A. Koenig. 8vo. Naumburg a/S. (Sonderabdruck d. J. f. O., Juli-Oct. Heft, 1890.)]

Dr. A. Koenig has favoured us with a separate copy of his account of his ornithological excursion to Madeira and the Canaries, in which, as we all know, he ran a race with two ornithologists of the B. O. U. for the discovery of certain "new species." Whichever of the rivals may be ultimately decided

to have been the victors in this friendly contest, we shall all appreciate the increase in our knowledge of the avifauna of these most interesting island-groups thus attained. When, however, it comes to a comparison of dates of publication, it must be recollected that the numbers of our much-valued contemporary, the 'Journal für Ornithologie,' are habitually issued many months after date*!

After some preliminary remarks, Dr. Koenig gives us his field-notes taken during the voyage to Madeira and during his sojourn on the island. To this follows a list of the 32 breeding-birds of Madeira and notes on their habits. In his third chapter Dr. Koenig proceeds to Teneriffe, and commences this part of his essay with general remarks on the Canaries and their natural history. These are concluded with a list of the 139 species of birds as yet known to occur in the island of Teneriffe. The "Special Part," which follows next, contains the author's copious notes on the 76 species which he met with personally. On these we may remark that *Cypselus pallidus*, *Corvus tingitanus*, and *Phylloscopus fortunatus* are recognized as "good species." That *Glaucidium siju* of Cuba has ever occurred in Teneriffe we are hardly prepared to admit, even on the authority of Don Ramon Gomez, unless it was brought there by an onion-boat! As Dr. Koenig allows that the *Regulus* of Teneriffe was first

* Mr. Waterhouse furnishes me with the following list of the dates at which parts of the J. f. O. 1887-1890 were received at the Library of the Zoological Society of London:—

VOL. XXXV. (1887).

- Part 1. July 2, 1887.
 „ 2. Sept. 19, 1887.
 „ 3. Mar. 5, 1888.
 „ 4. Mar. 20, 1888.

VOL. XXXVI. (1888).

- Part 1. July 13, 1888.
 „ 2. { Jan. 3, 1889.
 „ 3. {
 „ 4. Feb. 23, 1889.

VOL. XXXVII. (1889).

- Part 1. May 13, 1889.
 „ 2. Aug. 7, 1889.
 „ 3. Jan. 14, 1890.
 „ 4. April 29, 1890.

VOL. XXXVIII. (1890).

- Part 1. July 11, 1890.
 „ 2. Nov. 24, 1890.
 „ 3. { Feb. 27, 1891.
 „ 4. {

distinguished by Mr. Seebohm as *R. teneriffæ*, he should not prefix to it his own subsequently given name! *Erithacus superbus*, it is still maintained, is an "ausgezeichnete gute Art" restricted (as is *Fringilla teydea*) to Teneriffe! How prior observers can have missed it Dr. Koenig cannot understand. It is quite evident, however, that Mr. Meade-Waldo (*cf.* Ibis, 1889, p. 2) was well acquainted with the Robin of Teneriffe, although he did not consider its slight variation in colour of great importance.

Dr. Koenig also visited the island of Palma, and concludes his essay with an account of his ornithological adventures on this island and a list of its birds. These he makes to be 38 in number. To his remarks on the priority of the discovery of *Fringilla palmæ* sive *cærulescens* we leave Canon Tristram to reply, nor do we care to notice the unfriendly footnote which the editor of the J. f. O. has thought fit to append to them.

Finally we should mention that Dr. Koenig's interesting essay is accompanied by well-executed figures of *Cerchneis tinnunculus canariensis*, *Dendrocopus major canariensis*, *Erithacus superbus* and *E. rubecula*, *Parus ultramarinus* and *P. teneriffæ*, *Regulus satelles* and *R. cristatus*, *Fringilla tintillon madeirensis*, *F. canariensis*, and *F. cærulescens*, and of a series of eggs of Madeiran and Canarian birds.

102. *List of Birds' Eggs in the Indian Museum, Calcutta.*

[List of Birds' Eggs in the Indian Museum, Calcutta. 2nd edition, revised up to March 1st, 1891. 8vo. Calcutta: 1891.]

The author of the new list of birds' eggs in the Indian Museum, Calcutta, has modestly withheld his name from this useful publication, with a copy of which we have been favoured. It gives a list of the species of which eggs are in the collection, arranged according to Mr. Oates's new edition of Hume's 'Nests and Eggs of Indian Birds,' with the exact localities and the donor's name appended to each set. A reference to the volume and page of Mr. Oates's work is added in each case.

103. Meyer on some Pigeons from Borneo and the Philippines.

[Ueber einige Tauben von Borneo und den Philippinen. Von A. B. Meyer. J. f. O. 1891, p. 69.]

Dr. Meyer describes as new *Ptilopus bangueyensis*, from Banguey Island, between Borneo and Palawan; *P. purpureinucha*, from Basilan; and *Treron fulvicollis baramensis* (subsp. nov.), from N.W. Borneo. These are all based on specimens in the Dresden Museum. Examples of *Leucotreron leclancheri* have been received from Cebu.

104. Oustalet on the Breeding of Penguins.

[Les Manchots du Cap de Bonne-Espérance au Jardin d'Acclimatation de Paris. La Nature, xix. p. 365 (May 9th, 1891).]

We are much pleased to find that M. Oustalet has recorded some of the principal facts relating to the breeding of the Penguins in the Jardin d'Acclimatation (*cf. supra*, p. 476) in the article above cited. It appears that the date of the breeding of this bird, in captivity at least, is very variable. Incubation lasts five weeks, and the young are fed by degorgement of half-digested food from the digestive tube of the parents, as is the case with the Cormorants (*cf. P. Z. S.* 1882, p. 458).

We must, however, take exception to M. Oustalet's statement that *Spheniscus demersus* is also found in the Falkland Islands. The South-American bird, *Spheniscus magellanicus*, is closely allied, but quite distinct. See Zool. Voy. Chall. ii. p. 125, pls. xxvii., xxviii., where both species are described and figured.

105. W. K. Parker on the Morphology of the Gallinacæ.

[On the Morphology of the Gallinacæ. By W. Kitchen Parker, F.R.S. Trans. Linn. Soc., Zool. v. p. 213.]

This is another of Parker's series of memoirs on the "Common Fowl" and its allies, and is, we suppose, the last fragment we can ever expect to receive from his accumulated stores of knowledge on this subject. The Fowl was first dealt with in a well-known essay in the 'Philosophical Trans-

actions' for 1869, and the wing of the Phasianine division of the family was discussed in a second essay published in the same work in 1888. In the Ray Society's volume on "Shoulder-girdle and Sternum," Parker explained his views on these portions of the Fowl's structure. The present paper treats of the spine and hind-quarters of the same bird, and also enters upon the corresponding structures in some of its allies, "the most important of which is the Button-Quail or Hemipod, a type which is dying out, and is manifestly intermediate between the typical Fowls and the semi-struthious Tinamous."

Like all Parker's other works, the present memoir is splendidly illustrated by four plates, drawn by himself, and put upon the stone by Mr. M. P. Parker. It has been edited by Prof. W. N. Parker.

106. *T. J. Parker on the Apteryx.*

[Observations on the Anatomy and Development of *Apteryx*. By T. Jeffery Parker, B.Sc., F.R.S. Phil. Trans. vol. 182 (1891), B, p. 25.]

It is always pleasant to see sons following the good ways of their fathers, and Prof. Parker's memoir on *Apteryx* and its development will be well received on that account, as well as for its high intrinsic merits. In his position at Otago the author has had unrivalled opportunities for studying the subject selected for his work, and has manifestly turned these opportunities to excellent account.

The memoir extends to over 100 pages, and is illustrated by seventeen plates. Among the more important results arrived at are*:—(1) That in *Apteryx* the *pterylosis* is not interrupted, as was supposed by Nitzsch; (2) that the lateral apterial space has a definite function in connection with the attitude assumed by the bird when asleep; (3) the discovery of several more muscles in the wing than were known to Owen; and (4) that the pecten is present in the eye during embryonic life, though absent in the adult, as shown by Owen.

Prof. Parker makes the remiges of *Apteryx* to consist of

* Cf. Shufeldt, in 'Science' for June 5th, 1891.

9 or 10 cubitals, 2 or 3 metacarpals, and a single mid-digital. On the whole it appears to him that the structure of the wing lends support to the view that the Ratitæ are the descendants of birds that possessed the power of flight, and that both Ratitæ and Carinatae have been derived from an early group of typical flying birds, or *Proto-carinatae*.

107. *Pleske on some Hybrid Birds.*

[Beschreibung einiger Vogelbastarde. Von Theodor Pleske. Mém. Acad. Imp. Sci. St. Pétersb. sér. 7, xxxv. no. 5.]

Herr Pleske describes some hybrids from specimens in the Museum of the Academy of Sciences of St. Petersburg—*Tetrao tetrix* × *Bonasa betulina*, *Motacilla flava beema* × *M. melanocephala*, *Parus borealis* × *Lophophanes cristatus*, and *Emberiza citrinella* × *E. leucocephala*. These birds are also figured.

108. *Romita on Additions to the Puglian Avifauna.*

[Aggiunte alla Ornitologia Pugliese. Pel Dott. Vincenzo de Romita. Annuario R. Istit. Tecnico-Nautico. Bari: 1889.]

Prof. de Romita has recorded in his 'Avifauna Pugliese' * the occurrence of 265 species of birds in Puglia. He has sedulously continued his observations since 1884, when the first list was issued, and now publishes his remarks on some species additional to the list, about 15 in number. A coloured plate is given to illustrate the variations in the different forms of *Budytes flavus*.

109. *Salvadori on a Wagtail new to Italy.*

[Intorno ad una Cutrettola nuova per l' Italia. Nota di Tommaso Salvadori. Boll. Mus. Zool. ed Anat. comp. R. Univ. Torino, vi. no. 101.]

The oriental form of *Budytes flavus* (called *Budytes beema*, Sykes) has occurred on the south-eastern coast of Italy. Count Salvadori has recognized two specimens of it among some Wagtails submitted to his inspection by Prof. de Romita, of Bari, the author of the 'Avifauna Pugliese' *. These

* Avifauna Pugliese. Catalogo sistematico degli Uccelli osservati in Puglia pel Dott. Vincenzo de Romita. Bari: 1884.

specimens are two adult males, taken near Bari in April last. Count Salvadori adds to his paper a scheme of the eight recognizable forms of Italian Wagtails.

110. *Schalow on the Avifauna of the Cisatlantean Subregion.*

[Ueber unsere Kenntniss des Atlas-Gebietes. Vortrag, gehalten in der Jahresversammlung der Allgemeinen Deutschen Ornithologischen Gesellschaft am 11. Mai 1890. Von Herman Schalow. J. f. O. 1891, p. 47.]

In an address given to the General German Ornithological Society at its Anniversary Meeting in 1890, Herr Schalow calls attention to our still very imperfect knowledge of the birds of Algeria, Tunis, and Barbary, together with those of the Atlas Range. While we quite admit that further exploration in this quarter would be very desirable, and that a general account of the present state of our knowledge of its Ornis should be at once undertaken by some competent ornithologist, we think that Herr Schalow has perhaps overstated his case a little. We have certainly a good general knowledge of the whole avifauna of the Cisatlantean Subregion, and cannot expect that many (if any) more discoveries of new species remain to be made. But much remains to be done in working out the exact areas of the different species and the dates of transit of the migrants. There is also the Moroccan portion of the Atlas range to be visited, whenever that is possible.

Mr. Boulenger has lately read before the Zoological Society an excellent memoir on the Reptiles and Batrachians of this fauna*. A corresponding memoir on the Birds would be of great value to ornithologists.

111. *Sharpe on the Classification of Birds.*

[A Review of recent Attempts to Classify Birds: an Address delivered before the Second International Ornithological Congress on the 18th of May, 1891, by R. Bowdler Sharpe, LL.D., F.L.S., &c. Budapest: 1891.]

In our short notice of the Meeting of the Second Inter-

* "Catalogue of the Reptiles and Batrachians of Barbary (Morocco, Algeria, Tunisia), based chiefly upon the Notes and Collections made in 1880-84 by M. Fernand Lataste." By G. A. Boulenger. Trans. Zool. Soc. xiii. p. 93.

national Ornithological Congress (above, p. 479) we have already alluded to the delivery of Dr. Sharpe's address on the Classification of Birds, of which the author favoured us with an early copy. This we have read with great interest, and do not doubt that all ornithologists will agree with us in fully appreciating the clear exposition of the views of recent systematists which it sets before us. Dr. Sharpe divides our progress in the classification of birds into three epochs—the Linnean (1735–1800), the Cuvierian (1800–1860), and the Darwinian. He confines his account of modern classifications to the last period, because up to that date Professor Newton's well-known article in the 'Encyclopædia Britannica' has already fully gone into the subject, and cannot, in Dr. Sharpe's opinion, be improved upon.

Beginning, therefore, with Huxley's celebrated scheme of classification promulgated in 1867, Dr. Sharpe discusses that and the systems put forward by Garrod (1874), Forbes (1884), the Editor of this Journal (1880), Newton (1884), Reichenow (1882), Coues (1884), Stejneger (1885), Fürbringer (1888), and Seebohm (1890), introducing allusions to other authorities who have devoted themselves to certain portions of the same subject. He then proceeds with his own views on the classification of Birds, and, after a preliminary discussion, gives us a list of the 34 Orders and 78 Suborders into which he proposes to divide them, commencing with the Saururæ and ending with the Passeriformes. Three Subclasses are primarily recognized—Saururæ, Ratitæ, and Carinatae. Short accounts of the leading characters of the divisions of the Carinatae are added in footnotes, and a series of plates illustrates the phylogeny. With the aid of these and the explanatory letterpress, the author's present views as to the "Systema Avium" may be readily understood.

112. *Thompson on the Birds of Manitoba.*

[The Birds of Manitoba. By Ernest E. Thompson, of Toronto, Canada. Proc. U.S. Nat. Mus. xiii. pp. 457–643.]

From personal experience during three years spent in the province, and with the aid of some observant fellow-workers,

Mr. Thompson seems to have succeeded in producing an excellent memoir on the birds of Manitoba—a district concerning which our previous knowledge of its ornithology was but fragmentary. After describing the physical features of the country, which are further illustrated by a convenient map, the author takes the 266 species as yet known to belong to its avifauna in the systematic order of the A. O. U. List, and gives us his notes on each of them. A list of the principal authorities consulted and an alphabetical index of the species are subjoined. The only thing that we miss is some sort of a general account of the Manitoban avifauna, which would certainly have been a convenient addition to the work. We observe that the Passeres are 122 in number—rather less than the usual amount in an ordinary avifauna. The occasional occurrence of *Milvulus forficatus* so far north as York Factory, on Hudson's Bay, is a curious fact, which has, however, been previously recorded.

113. *Vorderman on the Birds of Billiton.*

[The Birds of Billiton. By A. G. Vorderman. Notes Leyd. Mus. xiii. p. 121.]

Herr Büttikofer translates and reprints from the Nat. Tijdschr. v. Ned. Ind. (1890) a paper by A. G. Vorderman on the birds of Billiton, which lies between Sumatra, Java, and Borneo. The island was visited in June 1888, and examples of 93 species (all known) were obtained or observed. Of these 32 are not found in Java, 10 are not found in Borneo, 8 are not known from Malacca, and 5 only not found in Sumatra. Thus Billiton is most nearly allied in its ornithology to Sumatra.

LIII.—*Letters, Extracts, Notices, &c.*

THE following letters have been received, addressed to the Editor of 'The Ibis':—

Binny, Uphall, Linlithgowshire,
April 29th, 1891.

SIR,—At my ranche in Montana, on Powder River, on April 21st, 1890, about 2 P.M., I witnessed an extraordinary